



## Norway Maple Seed Whirlybird that actually works, 5 minute print time



MrLogston

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### Summary

Maple seeds remind me of the fall, as they literally fall during the Fall. There are none near me, so why not print it!



0.09 hrs



1 pcs



0.05 mm



0.40 mm



PLA



1 g



Prusa MK2/S

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Maple seeds remind me of the fall, as they literally fall during the Fall. There are none near me, so why not print it!

video of drop test #2:

video of drop test:

After searching online and finding a few existing designs to print, none worked reliably. After highly modifying a design from a university experiment, printing the seed at only a .05mm first layer height had great results. Some trial and error was used to make the print as light as possible while maintaining the helicopter effect when dropped and increasing its flight time.

The source project set out to mimic the actual seeds' flight, while I set out to just make it print reliably, use as little filament as possible, and increase the whirlybird effect.

Sources:

- **University study including 3d print using PLA**
  - Nave, Jr., Gary K.; Hall, Nathaniel; Somers, Katrina; Davis, Brock; Collver, Michael; Gruszewski, Hope A.; et al. (2020): Wind dispersal of natural and biomimetic maple samaras - supplemental design files. figshare. Online resource. <https://doi.org/10.6084/m9.figshare.13003025.v1>

## Model files



**norwaymapleready2print.stl**

## Print files



**norwaymaplethird\_110\_005mm\_pla\_mk2s\_5m.gcode**

PLA 0.40 mm 0.05 mm 0.09 hrs 1 g Prusa MK2/S

bottom layer set to .05mm - VERY THIN! - and layer pattern to concentric

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